Great Western

Well Name: **Cornish FH 08-279HN**

Surface Location: Cornish Pad Sec.8-T6N-R63W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

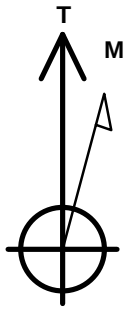
Ground Elevation: 4679.3

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1425823.81	3286566.98	40.497717	-104.469564	

RKB - 16.5' WELL @ 4695.8ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1452'FSL & 210'FWL	1.0	0.0	0.0	Point
BHL 1608'FSL & 470'FEL	6480.8	232.1	4585.9	Point
Entry Pt. 1608'FSL & 460'FWL	6480.8	159.9	250.3	Point



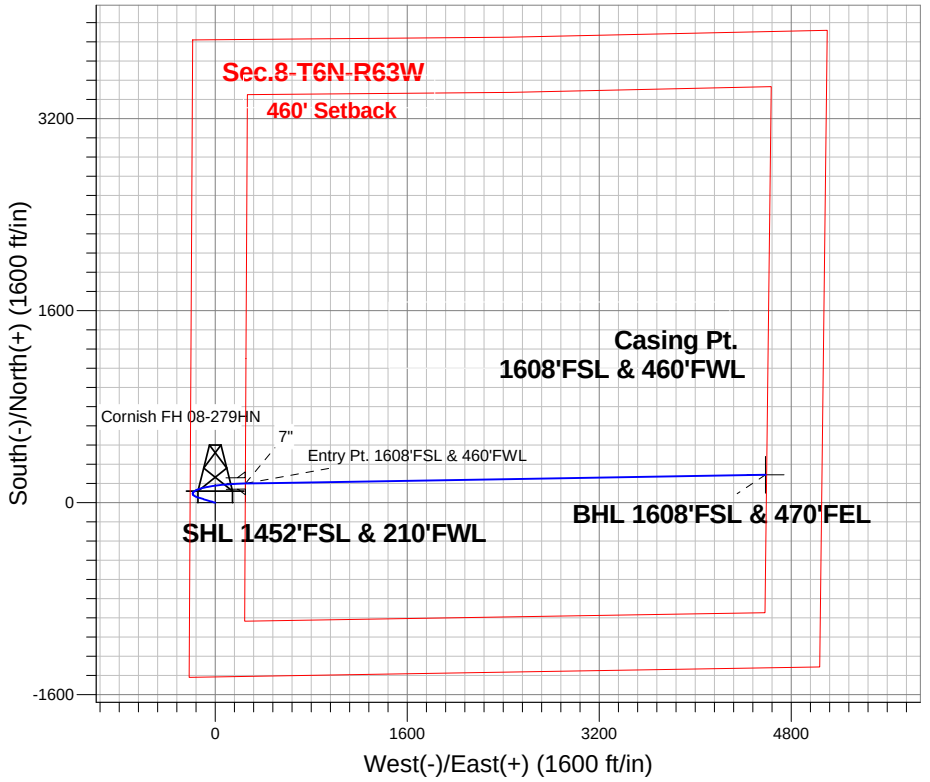
Azimuths to True North
Magnetic North: 8.38°

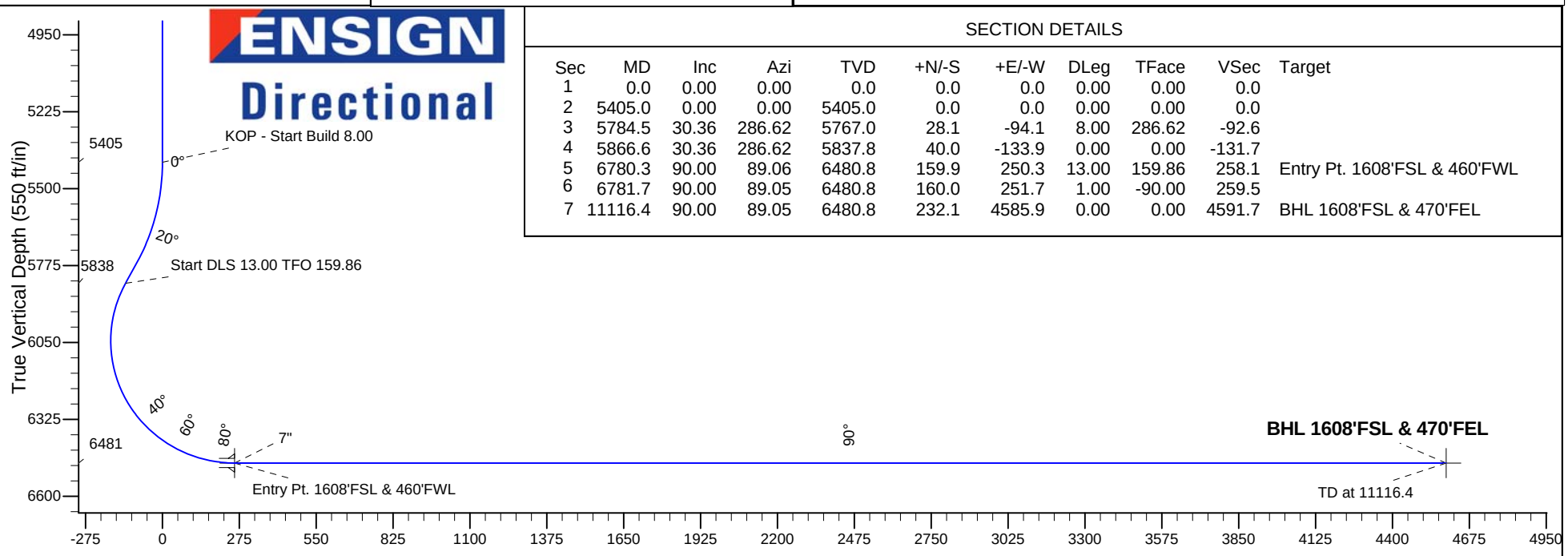
Magnetic Field
Strength: 52958.2snT
Dip Angle: 67.09°
Date: 11/19/2013
Model: IGRF2010

Cornish Pad Sec.8-T6N-R63W
Cornish FH 08-279HN
Plan #1 (11-19-13)
8:02, November 21 2013

ANNOTATIONS

TVD	MD	Annotation
5405.0	5405.0	KOP - Start Build 8.00
5837.8	5866.6	Start DLS 13.00 TFO 159.86
6480.8	11116.4	TD at 11116.4





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5405.0	0.00	0.00	5405.0	0.0	0.0	0.00	0.00	0.0	
3	5784.5	30.36	286.62	5767.0	28.1	-94.1	8.00	286.62	-92.6	
4	5866.6	30.36	286.62	5837.8	40.0	-133.9	0.00	0.00	-131.7	
5	6780.3	90.00	89.06	6480.8	159.9	250.3	13.00	159.86	258.1	Entry Pt. 1608'FSL & 460'FWL
6	6781.7	90.00	89.05	6480.8	160.0	251.7	1.00	-90.00	259.5	
7	11116.4	90.00	89.05	6480.8	232.1	4585.9	0.00	0.00	4591.7	BHL 1608'FSL & 470'FEL

Great Western

SEC.8-T6N-R63W
Cornish Pad Sec.8-T6N-R63W
Cornish FH 08-279HN

Wellbore #1

Plan: Plan #1 (11-19-13)

Standard Planning Report

21 November, 2013

Database:	Landmark	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Company:	Great Western	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Project:	SEC.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site:	Cornish Pad Sec.8-T6N-R63W	**North Reference:**	True
Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-19-13)		

Project SEC.8-T6N-R63W, Weld County, Colorado

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Cornish Pad Sec.8-T6N-R63W

Site Position:		**Northing:**	1,425,913.79 ft	**Latitude:**	40.497964
From:	Lat/Long	**Easting:**	3,286,565.94 ft	**Longitude:**	-104.469564
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.67 °

Well Cornish FH 08-279HN

Well Position	**+N/-S**	-90.0 ft	**Northing:**	1,425,823.81 ft	**Latitude:**	40.497717
	+E/-W	0.0 ft	**Easting:**	3,286,566.98 ft	**Longitude:**	-104.469564
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,679.3 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/19/2013	8.39	67.09	52,958

Design Plan #1 (11-19-13)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	87.10

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,405.0	0.00	0.00	5,405.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,784.5	30.36	286.62	5,767.0	28.1	-94.1	8.00	8.00	0.00	286.62	
5,866.6	30.36	286.62	5,837.8	40.0	-133.9	0.00	0.00	0.00	0.00	
6,780.3	90.00	89.06	6,480.8	159.9	250.3	13.00	6.53	17.78	159.86	Entry Pt. 1608'FSL
6,781.7	90.00	89.05	6,480.8	160.0	251.7	1.00	0.00	-1.00	-90.00	
11,116.4	90.00	89.05	6,480.8	232.1	4,585.9	0.00	0.00	0.00	0.00	BHL 1608'FSL & 47

Database:	Landmark	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Company:	Great Western	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Project:	SEC.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site:	Cornish Pad Sec.8-T6N-R63W	**North Reference:**	True
Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-19-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 1452'FSL & 210'FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

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Site:	Cornish Pad Sec.8-T6N-R63W	**North Reference:**	True
Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-19-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,405.0	0.00	0.00	5,405.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 8.00									
5,500.0	7.60	286.62	5,499.7	1.8	-6.0	-5.9	8.00	8.00	0.00
5,600.0	15.60	286.62	5,597.6	7.5	-25.3	-24.9	8.00	8.00	0.00
5,700.0	23.60	286.62	5,691.7	17.1	-57.4	-56.5	8.00	8.00	0.00
5,784.5	30.36	286.62	5,767.0	28.1	-94.1	-92.6	8.00	8.00	0.00
5,800.0	30.36	286.62	5,780.4	30.3	-101.6	-100.0	0.00	0.00	0.00
5,866.6	30.36	286.62	5,837.8	40.0	-133.9	-131.7	0.00	0.00	0.00
Start DLS 13.00 TFO 159.86									
5,900.0	26.32	290.00	5,867.2	44.9	-148.9	-146.5	13.01	-12.10	10.10
6,000.0	15.18	309.71	5,960.7	60.9	-180.0	-176.7	13.00	-11.14	19.71
6,100.0	10.14	7.86	6,058.6	78.1	-188.9	-184.7	13.00	-5.04	58.15
6,200.0	17.60	55.20	6,155.9	95.5	-175.2	-170.1	13.00	7.46	47.35
6,300.0	29.18	70.61	6,247.6	112.3	-139.6	-133.8	13.00	11.58	15.40
6,400.0	41.57	77.56	6,329.0	127.6	-84.0	-77.4	13.00	12.38	6.95
6,500.0	54.20	81.74	6,395.9	140.7	-11.2	-4.0	13.00	12.63	4.17
6,600.0	66.94	84.74	6,445.0	150.7	75.2	82.7	13.00	12.74	3.01
6,700.0	79.72	87.22	6,473.6	157.4	170.5	178.3	13.00	12.79	2.48
6,780.3	89.99	89.06	6,480.8	159.9	250.3	258.1	13.00	12.80	2.29
7" - Entry Pt. 1608'FSL & 460'FWL									
6,781.7	90.00	89.05	6,480.8	160.0	251.7	259.5	1.00	0.36	-0.94
6,800.0	90.00	89.05	6,480.8	160.3	270.0	277.8	0.00	0.00	0.00
6,900.0	90.00	89.05	6,480.8	161.9	370.0	377.7	0.00	0.00	0.00
7,000.0	90.00	89.05	6,480.8	163.6	470.0	477.7	0.00	0.00	0.00
7,100.0	90.00	89.05	6,480.8	165.3	570.0	577.6	0.00	0.00	0.00
7,200.0	90.00	89.05	6,480.8	166.9	670.0	677.6	0.00	0.00	0.00
7,300.0	90.00	89.05	6,480.8	168.6	770.0	777.5	0.00	0.00	0.00
7,400.0	90.00	89.05	6,480.8	170.3	870.0	877.5	0.00	0.00	0.00
7,500.0	90.00	89.05	6,480.8	171.9	969.9	977.4	0.00	0.00	0.00
7,600.0	90.00	89.05	6,480.8	173.6	1,069.9	1,077.3	0.00	0.00	0.00
7,700.0	90.00	89.05	6,480.8	175.3	1,169.9	1,177.3	0.00	0.00	0.00
7,800.0	90.00	89.05	6,480.8	176.9	1,269.9	1,277.2	0.00	0.00	0.00
7,900.0	90.00	89.05	6,480.8	178.6	1,369.9	1,377.2	0.00	0.00	0.00
8,000.0	90.00	89.05	6,480.8	180.3	1,469.9	1,477.1	0.00	0.00	0.00
8,100.0	90.00	89.05	6,480.8	181.9	1,569.9	1,577.1	0.00	0.00	0.00
8,200.0	90.00	89.05	6,480.8	183.6	1,669.8	1,677.0	0.00	0.00	0.00
8,300.0	90.00	89.05	6,480.8	185.2	1,769.8	1,776.9	0.00	0.00	0.00
8,400.0	90.00	89.05	6,480.8	186.9	1,869.8	1,876.9	0.00	0.00	0.00
8,500.0	90.00	89.05	6,480.8	188.6	1,969.8	1,976.8	0.00	0.00	0.00
8,600.0	90.00	89.05	6,480.8	190.2	2,069.8	2,076.8	0.00	0.00	0.00
8,700.0	90.00	89.05	6,480.8	191.9	2,169.8	2,176.7	0.00	0.00	0.00
8,800.0	90.00	89.05	6,480.8	193.6	2,269.8	2,276.6	0.00	0.00	0.00
8,900.0	90.00	89.05	6,480.8	195.2	2,369.8	2,376.6	0.00	0.00	0.00
9,000.0	90.00	89.05	6,480.8	196.9	2,469.7	2,476.5	0.00	0.00	0.00
9,100.0	90.00	89.05	6,480.8	198.6	2,569.7	2,576.5	0.00	0.00	0.00
9,200.0	90.00	89.05	6,480.8	200.2	2,669.7	2,676.4	0.00	0.00	0.00
9,300.0	90.00	89.05	6,480.8	201.9	2,769.7	2,776.4	0.00	0.00	0.00
9,400.0	90.00	89.05	6,480.8	203.6	2,869.7	2,876.3	0.00	0.00	0.00
9,500.0	90.00	89.05	6,480.8	205.2	2,969.7	2,976.2	0.00	0.00	0.00
9,600.0	90.00	89.05	6,480.8	206.9	3,069.7	3,076.2	0.00	0.00	0.00

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Site:	Cornish Pad Sec.8-T6N-R63W	**North Reference:**	True
Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-19-13)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.0	90.00	89.05	6,480.8	208.6	3,169.6	3,176.1	0.00	0.00	0.00
9,800.0	90.00	89.05	6,480.8	210.2	3,269.6	3,276.1	0.00	0.00	0.00
9,900.0	90.00	89.05	6,480.8	211.9	3,369.6	3,376.0	0.00	0.00	0.00
10,000.0	90.00	89.05	6,480.8	213.6	3,469.6	3,476.0	0.00	0.00	0.00
10,100.0	90.00	89.05	6,480.8	215.2	3,569.6	3,575.9	0.00	0.00	0.00
10,200.0	90.00	89.05	6,480.8	216.9	3,669.6	3,675.8	0.00	0.00	0.00
10,300.0	90.00	89.05	6,480.8	218.5	3,769.6	3,775.8	0.00	0.00	0.00
10,400.0	90.00	89.05	6,480.8	220.2	3,869.5	3,875.7	0.00	0.00	0.00
10,500.0	90.00	89.05	6,480.8	221.9	3,969.5	3,975.7	0.00	0.00	0.00
10,600.0	90.00	89.05	6,480.8	223.5	4,069.5	4,075.6	0.00	0.00	0.00
10,700.0	90.00	89.05	6,480.8	225.2	4,169.5	4,175.6	0.00	0.00	0.00
10,800.0	90.00	89.05	6,480.8	226.9	4,269.5	4,275.5	0.00	0.00	0.00
10,900.0	90.00	89.05	6,480.8	228.5	4,369.5	4,375.4	0.00	0.00	0.00
11,000.0	90.00	89.05	6,480.8	230.2	4,469.5	4,475.4	0.00	0.00	0.00
11,100.0	90.00	89.05	6,480.8	231.9	4,569.4	4,575.3	0.00	0.00	0.00
11,116.4	90.00	89.05	6,480.8	232.1	4,585.8	4,591.7	0.00	0.00	0.00
TD at 11116.4 - BHL 1608'FSL & 470'FEL									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,780.3	6,480.8	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,405.0	5,405.0	0.0	0.0	KOP - Start Build 8.00
5,866.6	5,837.8	40.0	-133.9	Start DLS 13.00 TFO 159.86
11,116.4	6,480.8	232.1	4,585.8	TD at 11116.4

ENSIGN
Directional

Great Western

SEC.8-T6N-R63W
Cornish Pad Sec.8-T6N-R63W
Cornish FH 08-279HN

Wellbore #1
Plan #1 (11-19-13)

Anticollision Report

21 November, 2013

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (11-19-13)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 11/19/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,116.4	Plan #1 (11-19-13) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Cornish Pad Sec.8-T6N-R63W						
Cornish FH 08-239HN - Wellbore #1 - Plan #1 (11-19-13	4,733.4	4,733.4	61.6	40.6	2.930	CC, ES
Cornish FH 08-239HN - Wellbore #1 - Plan #1 (11-19-13	11,117.1	11,219.5	569.6	305.8	2.159	SF
Cornish FH 08-242HC - Wellbore #1 - Plan #1 (11-19-13	5,263.0	5,263.0	30.2	6.8	1.292	Level 3, CC
Cornish FH 08-242HC - Wellbore #1 - Plan #1 (11-19-13	5,300.0	5,299.9	30.3	6.7	1.284	Level 3, ES, SF
Cornish FH 08-322HN - Wellbore #1 - Plan #1 (11-19-13	5,200.0	5,200.0	29.5	6.4	1.277	Level 3, CC, ES, SF
Cornish FH 08-359HC - Wellbore #1 - Plan #1 (11-19-13	5,000.0	5,000.0	59.8	37.5	2.690	CC, ES, SF

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-239HN - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	61.6	0.0	61.6				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	61.6	0.0	61.6	61.4	0.19	328.058	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	61.6	0.0	61.6	60.9	0.64	96.624	
300.0	300.0	300.0	300.0	0.5	0.5	0.00	61.6	0.0	61.6	60.5	1.09	56.655	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	61.6	0.0	61.6	60.0	1.54	40.077	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	61.6	0.0	61.6	59.6	1.99	31.005	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	61.6	0.0	61.6	59.1	2.44	25.282	
700.0	700.0	700.0	700.0	1.4	1.4	0.00	61.6	0.0	61.6	58.7	2.88	21.342	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	61.6	0.0	61.6	58.2	3.33	18.465	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	61.6	0.0	61.6	57.8	3.78	16.271	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	61.6	0.0	61.6	57.3	4.23	14.544	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.00	61.6	0.0	61.6	56.9	4.68	13.148	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.00	61.6	0.0	61.6	56.4	5.13	11.996	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.00	61.6	0.0	61.6	56.0	5.58	11.030	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	0.00	61.6	0.0	61.6	55.5	6.03	10.208	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	0.00	61.6	0.0	61.6	55.1	6.48	9.500	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	0.00	61.6	0.0	61.6	54.6	6.93	8.884	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	0.00	61.6	0.0	61.6	54.2	7.38	8.343	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	0.00	61.6	0.0	61.6	53.7	7.83	7.864	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	0.00	61.6	0.0	61.6	53.3	8.28	7.437	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	0.00	61.6	0.0	61.6	52.8	8.73	7.054	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-239HN - Wellbore #1 - Plan #1 (11-19-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	0.00	61.6	0.0	61.6	52.4	9.18	6.708	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	0.00	61.6	0.0	61.6	51.9	9.63	6.395	
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	0.00	61.6	0.0	61.6	51.5	10.08	6.110	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	0.00	61.6	0.0	61.6	51.0	10.53	5.849	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	0.00	61.6	0.0	61.6	50.6	10.98	5.609	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	0.00	61.6	0.0	61.6	50.1	11.43	5.389	
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	0.00	61.6	0.0	61.6	49.7	11.88	5.185	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	0.00	61.6	0.0	61.6	49.2	12.33	4.996	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	0.00	61.6	0.0	61.6	48.8	12.77	4.820	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	0.00	61.6	0.0	61.6	48.3	13.22	4.656	
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	0.00	61.6	0.0	61.6	47.9	13.67	4.503	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	0.00	61.6	0.0	61.6	47.4	14.12	4.359	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	0.00	61.6	0.0	61.6	47.0	14.57	4.225	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	0.00	61.6	0.0	61.6	46.5	15.02	4.099	
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	0.00	61.6	0.0	61.6	46.1	15.47	3.979	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	0.00	61.6	0.0	61.6	45.6	15.92	3.867	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	0.00	61.6	0.0	61.6	45.2	16.37	3.761	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	0.00	61.6	0.0	61.6	44.7	16.82	3.660	
3,900.0	3,900.0	3,900.0	3,900.0	8.6	8.6	0.00	61.6	0.0	61.6	44.3	17.27	3.565	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	0.00	61.6	0.0	61.6	43.9	17.72	3.475	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	0.00	61.6	0.0	61.6	43.4	18.17	3.389	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	0.00	61.6	0.0	61.6	43.0	18.62	3.307	
4,300.0	4,300.0	4,300.0	4,300.0	9.5	9.5	0.00	61.6	0.0	61.6	42.5	19.07	3.229	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	0.00	61.6	0.0	61.6	42.1	19.52	3.155	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	0.00	61.6	0.0	61.6	41.6	19.97	3.084	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	0.00	61.6	0.0	61.6	41.2	20.42	3.016	
4,700.0	4,700.0	4,700.0	4,700.0	10.4	10.4	0.00	61.6	0.0	61.6	40.7	20.87	2.951	
4,733.4	4,733.4	4,733.4	4,733.4	10.5	10.5	0.00	61.6	0.0	61.6	40.6	21.02	2.930	CC, ES
4,800.0	4,800.0	4,798.6	4,798.5	10.7	10.7	-0.22	62.1	-0.2	62.2	40.8	21.31	2.916	
4,900.0	4,900.0	4,895.4	4,895.3	10.9	10.9	-1.87	66.7	-2.2	66.9	45.1	21.75	3.074	
5,000.0	5,000.0	4,991.5	4,990.9	11.1	11.1	-4.55	75.6	-6.0	76.4	54.2	22.19	3.442	
5,100.0	5,100.0	5,086.4	5,084.7	11.3	11.3	-7.48	88.7	-11.6	90.8	68.2	22.63	4.013	
5,200.0	5,200.0	5,179.7	5,176.0	11.6	11.5	-10.16	105.8	-19.0	110.1	87.1	23.07	4.774	
5,300.0	5,300.0	5,270.9	5,264.4	11.8	11.7	-12.41	126.4	-27.8	134.3	110.7	23.53	5.707	
5,400.0	5,400.0	5,359.7	5,349.4	12.0	12.0	-14.20	150.3	-38.0	163.0	139.0	24.00	6.794	
5,500.0	5,499.7	5,447.0	5,431.6	12.2	12.3	57.25	177.2	-49.6	193.1	168.8	24.28	7.953	
5,600.0	5,597.6	5,533.3	5,511.5	12.4	12.6	58.10	207.1	-62.4	220.5	196.0	24.56	8.980	
5,700.0	5,691.7	5,617.7	5,588.2	12.7	12.9	60.74	239.7	-76.4	246.2	221.3	24.84	9.908	
5,800.0	5,780.4	5,700.0	5,661.3	13.0	13.3	64.72	274.3	-91.2	271.6	246.3	25.32	10.728	
5,900.0	5,867.2	5,780.6	5,731.3	13.4	13.7	68.07	311.0	-106.9	301.7	275.5	26.18	11.523	
6,000.0	5,960.7	5,874.7	5,812.1	13.7	14.2	55.36	355.3	-125.9	334.1	307.2	26.94	12.402	
6,100.0	6,058.6	5,968.6	5,892.8	14.0	14.8	-0.06	399.5	-144.9	364.3	336.8	27.46	13.268	
6,200.0	6,155.9	6,057.6	5,969.3	14.2	15.4	-47.45	441.4	-162.9	393.2	365.4	27.79	14.146	
6,300.0	6,247.6	6,138.8	6,039.1	14.3	15.9	-63.92	479.6	-178.7	424.2	396.1	28.08	15.106	
6,400.0	6,329.0	6,227.3	6,116.3	14.4	16.4	-72.01	522.2	-183.3	459.1	430.7	28.45	16.139	
6,500.0	6,395.9	6,333.3	6,207.5	14.8	16.9	-77.50	572.8	-165.7	496.1	467.0	29.07	17.063	
6,600.0	6,445.0	6,471.0	6,315.5	15.6	17.5	-82.50	633.4	-106.7	531.7	501.6	30.14	17.644	
6,700.0	6,473.6	6,662.6	6,428.3	16.7	18.1	-87.43	697.9	32.0	559.8	527.8	32.06	17.463	
6,800.0	6,480.8	6,902.4	6,480.8	18.2	19.6	-90.00	730.6	260.6	570.4	534.4	36.04	15.827	
6,900.0	6,480.8	7,002.4	6,480.8	19.9	20.9	-90.00	732.2	360.6	570.4	531.0	39.40	14.478	
7,000.0	6,480.8	7,102.4	6,480.8	21.9	22.6	-90.00	733.9	460.6	570.4	527.1	43.22	13.195	
7,100.0	6,480.8	7,202.4	6,480.8	24.0	24.5	-90.00	735.5	560.6	570.3	522.9	47.41	12.030	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-239HN - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,200.0	6,480.8	7,302.4	6,480.8	26.3	26.6	-90.00	737.2	660.6	570.3	518.5	51.86	10.996	
7,300.0	6,480.8	7,402.4	6,480.8	28.6	28.8	-90.00	738.8	760.6	570.3	513.8	56.53	10.089	
7,400.0	6,480.8	7,502.4	6,480.8	31.1	31.1	-90.00	740.5	860.6	570.3	508.9	61.35	9.296	
7,500.0	6,480.8	7,602.4	6,480.8	33.5	33.5	-90.00	742.1	960.6	570.3	504.0	66.29	8.602	
7,600.0	6,480.8	7,702.4	6,480.8	36.1	36.0	-90.00	743.8	1,060.5	570.2	498.9	71.34	7.993	
7,700.0	6,480.8	7,802.4	6,480.8	38.7	38.5	-90.00	745.4	1,160.5	570.2	493.8	76.46	7.457	
7,800.0	6,480.8	7,902.4	6,480.8	41.3	41.0	-90.00	747.1	1,260.5	570.2	488.6	81.65	6.983	
7,900.0	6,480.8	8,002.4	6,480.8	43.9	43.6	-90.00	748.7	1,360.5	570.2	483.3	86.89	6.562	
8,000.0	6,480.8	8,102.4	6,480.8	46.5	46.2	-90.00	750.3	1,460.5	570.2	478.0	92.18	6.185	
8,100.0	6,480.8	8,202.4	6,480.8	49.2	48.9	-90.00	752.0	1,560.5	570.2	472.7	97.50	5.848	
8,200.0	6,480.8	8,302.4	6,480.8	51.9	51.5	-90.00	753.6	1,660.5	570.1	467.3	102.85	5.543	
8,300.0	6,480.8	8,402.4	6,480.8	54.6	54.2	-90.00	755.3	1,760.4	570.1	461.9	108.23	5.267	
8,400.0	6,480.8	8,502.4	6,480.8	57.3	56.8	-90.00	756.9	1,860.4	570.1	456.5	113.64	5.017	
8,500.0	6,480.8	8,602.4	6,480.8	60.0	59.5	-90.00	758.6	1,960.4	570.1	451.0	119.06	4.788	
8,600.0	6,480.8	8,702.4	6,480.8	62.7	62.2	-90.00	760.2	2,060.4	570.1	445.6	124.50	4.579	
8,700.0	6,480.8	8,802.4	6,480.8	65.4	64.9	-90.00	761.9	2,160.4	570.0	440.1	129.95	4.387	
8,800.0	6,480.8	8,902.4	6,480.8	68.2	67.6	-90.00	763.5	2,260.4	570.0	434.6	135.41	4.209	
8,900.0	6,480.8	9,002.4	6,480.8	70.9	70.4	-90.00	765.2	2,360.4	570.0	429.1	140.89	4.046	
9,000.0	6,480.8	9,102.4	6,480.8	73.7	73.1	-90.00	766.8	2,460.4	570.0	423.6	146.38	3.894	
9,100.0	6,480.8	9,202.4	6,480.8	76.4	75.8	-90.00	768.5	2,560.3	570.0	418.1	151.88	3.753	
9,200.0	6,480.8	9,302.4	6,480.8	79.2	78.6	-90.00	770.1	2,660.3	570.0	412.6	157.38	3.621	
9,300.0	6,480.8	9,402.4	6,480.8	81.9	81.3	-90.00	771.8	2,760.3	569.9	407.0	162.90	3.499	
9,400.0	6,480.8	9,502.4	6,480.8	84.7	84.1	-90.00	773.4	2,860.3	569.9	401.5	168.42	3.384	
9,500.0	6,480.8	9,602.4	6,480.8	87.4	86.8	-90.00	775.1	2,960.3	569.9	396.0	173.94	3.276	
9,600.0	6,480.8	9,702.4	6,480.8	90.2	89.6	-90.00	776.7	3,060.3	569.9	390.4	179.47	3.175	
9,700.0	6,480.8	9,802.4	6,480.8	93.0	92.3	-90.00	778.3	3,160.3	569.9	384.9	185.01	3.080	
9,800.0	6,480.8	9,902.4	6,480.8	95.7	95.1	-90.00	780.0	3,260.2	569.8	379.3	190.55	2.991	
9,900.0	6,480.8	10,002.4	6,480.8	98.5	97.8	-90.00	781.6	3,360.2	569.8	373.7	196.09	2.906	
10,000.0	6,480.8	10,102.4	6,480.8	101.3	100.6	-90.00	783.3	3,460.2	569.8	368.2	201.64	2.826	
10,100.0	6,480.8	10,202.4	6,480.8	104.1	103.4	-90.00	784.9	3,560.2	569.8	362.6	207.19	2.750	
10,200.0	6,480.8	10,302.4	6,480.8	106.8	106.2	-90.00	786.6	3,660.2	569.8	357.0	212.75	2.678	
10,300.0	6,480.8	10,402.4	6,480.8	109.6	108.9	-90.00	788.2	3,760.2	569.8	351.4	218.30	2.610	
10,400.0	6,480.8	10,502.4	6,480.8	112.4	111.7	-90.00	789.9	3,860.2	569.7	345.9	223.86	2.545	
10,500.0	6,480.8	10,602.4	6,480.8	115.2	114.5	-90.00	791.5	3,960.1	569.7	340.3	229.43	2.483	
10,600.0	6,480.8	10,702.4	6,480.8	118.0	117.3	-90.00	793.2	4,060.1	569.7	334.7	234.99	2.424	
10,700.0	6,480.8	10,802.4	6,480.8	120.8	120.0	-90.00	794.8	4,160.1	569.7	329.1	240.56	2.368	
10,800.0	6,480.8	10,902.4	6,480.8	123.5	122.8	-90.00	796.5	4,260.1	569.7	323.5	246.13	2.314	
10,900.0	6,480.8	11,002.4	6,480.8	126.3	125.6	-90.00	798.1	4,360.1	569.6	317.9	251.70	2.263	
11,000.0	6,480.8	11,102.4	6,480.8	129.1	128.4	-90.00	799.8	4,460.1	569.6	312.4	257.28	2.214	
11,100.0	6,480.8	11,202.4	6,480.8	131.9	131.2	-90.00	801.4	4,560.1	569.6	306.8	262.85	2.167	
11,117.1	6,480.8	11,219.5	6,480.8	132.4	131.6	-90.00	801.7	4,577.2	569.6	305.8	263.80	2.159	SF

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-242HC - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	30.2	0.0	30.2				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	30.2	0.0	30.2	30.1	0.19	161.117	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	30.2	0.0	30.2	29.6	0.64	47.454	
300.0	300.0	300.0	300.0	0.5	0.5	0.00	30.2	0.0	30.2	29.2	1.09	27.825	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	30.2	0.0	30.2	28.7	1.54	19.683	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	30.2	0.0	30.2	28.3	1.99	15.227	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	30.2	0.0	30.2	27.8	2.44	12.417	
700.0	700.0	700.0	700.0	1.4	1.4	0.00	30.2	0.0	30.2	27.4	2.88	10.482	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	30.2	0.0	30.2	26.9	3.33	9.069	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	30.2	0.0	30.2	26.5	3.78	7.991	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	30.2	0.0	30.2	26.0	4.23	7.143	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.00	30.2	0.0	30.2	25.6	4.68	6.457	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.00	30.2	0.0	30.2	25.1	5.13	5.892	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.00	30.2	0.0	30.2	24.7	5.58	5.417	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	0.00	30.2	0.0	30.2	24.2	6.03	5.013	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	0.00	30.2	0.0	30.2	23.8	6.48	4.666	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	0.00	30.2	0.0	30.2	23.3	6.93	4.363	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	0.00	30.2	0.0	30.2	22.9	7.38	4.097	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	0.00	30.2	0.0	30.2	22.4	7.83	3.862	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	0.00	30.2	0.0	30.2	22.0	8.28	3.652	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	0.00	30.2	0.0	30.2	21.5	8.73	3.464	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	0.00	30.2	0.0	30.2	21.1	9.18	3.295	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	0.00	30.2	0.0	30.2	20.6	9.63	3.141	
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	0.00	30.2	0.0	30.2	20.2	10.08	3.001	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	0.00	30.2	0.0	30.2	19.7	10.53	2.872	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	0.00	30.2	0.0	30.2	19.3	10.98	2.755	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	0.00	30.2	0.0	30.2	18.8	11.43	2.646	
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	0.00	30.2	0.0	30.2	18.4	11.88	2.546	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	0.00	30.2	0.0	30.2	17.9	12.33	2.453	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	0.00	30.2	0.0	30.2	17.5	12.77	2.367	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	0.00	30.2	0.0	30.2	17.0	13.22	2.287	
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	0.00	30.2	0.0	30.2	16.6	13.67	2.211	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	0.00	30.2	0.0	30.2	16.1	14.12	2.141	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	0.00	30.2	0.0	30.2	15.7	14.57	2.075	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	0.00	30.2	0.0	30.2	15.2	15.02	2.013	
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	0.00	30.2	0.0	30.2	14.8	15.47	1.954	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	0.00	30.2	0.0	30.2	14.3	15.92	1.899	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	0.00	30.2	0.0	30.2	13.9	16.37	1.847	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	0.00	30.2	0.0	30.2	13.4	16.82	1.798	
3,900.0	3,900.0	3,900.0	3,900.0	8.6	8.6	0.00	30.2	0.0	30.2	13.0	17.27	1.751	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	0.00	30.2	0.0	30.2	12.5	17.72	1.707	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	0.00	30.2	0.0	30.2	12.1	18.17	1.664	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	0.00	30.2	0.0	30.2	11.6	18.62	1.624	
4,300.0	4,300.0	4,300.0	4,300.0	9.5	9.5	0.00	30.2	0.0	30.2	11.2	19.07	1.586	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	0.00	30.2	0.0	30.2	10.7	19.52	1.549	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	0.00	30.2	0.0	30.2	10.3	19.97	1.514	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	0.00	30.2	0.0	30.2	9.8	20.42	1.481	Level 3
4,700.0	4,700.0	4,700.0	4,700.0	10.4	10.4	0.00	30.2	0.0	30.2	9.4	20.87	1.449	Level 3
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	0.00	30.2	0.0	30.2	8.9	21.32	1.419	Level 3
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	0.00	30.2	0.0	30.2	8.5	21.77	1.389	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	0.00	30.2	0.0	30.2	8.0	22.21	1.361	Level 3
5,100.0	5,100.0	5,100.0	5,100.0	11.3	11.3	0.00	30.2	0.0	30.2	7.6	22.66	1.334	Level 3

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-242HC - Wellbore #1 - Plan #1 (11-19-13) **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	0.00	30.2	0.0	30.2	7.1	23.11	1.308	Level 3
5,263.0	5,263.0	5,263.0	5,263.0	11.7	11.7	0.00	30.2	0.0	30.2	6.8	23.40	1.292	Level 3, CC
5,300.0	5,300.0	5,299.9	5,299.9	11.8	11.8	-0.03	30.3	0.0	30.3	6.7	23.56	1.284	Level 3, ES, SF
5,400.0	5,400.0	5,398.5	5,398.5	12.0	12.0	-3.37	32.6	-1.9	32.7	8.7	24.00	1.364	Level 3
5,500.0	5,499.7	5,496.9	5,496.5	12.2	12.2	71.44	39.0	-7.0	37.3	12.9	24.42	1.529	
5,600.0	5,597.6	5,594.7	5,593.4	12.4	12.4	85.69	49.2	-15.1	43.1	18.2	24.87	1.732	
5,700.0	5,691.7	5,691.2	5,688.2	12.7	12.7	104.79	63.1	-26.2	55.7	30.4	25.24	2.205	
5,800.0	5,780.4	5,785.8	5,780.2	13.0	12.9	120.53	80.3	-39.9	79.4	54.2	25.16	3.156	
5,900.0	5,867.2	5,881.0	5,871.6	13.4	13.2	126.51	101.2	-56.5	108.3	82.6	25.65	4.221	
6,000.0	5,960.7	5,980.4	5,965.5	13.7	13.5	107.69	126.8	-76.9	122.4	95.5	26.88	4.553	
6,100.0	6,058.6	6,078.5	6,056.3	14.0	13.8	41.32	155.7	-100.0	118.0	90.6	27.40	4.307	
6,200.0	6,155.9	6,167.7	6,137.1	14.2	14.2	-24.94	185.2	-123.5	105.2	77.8	27.40	3.839	
6,240.8	6,194.3	6,200.0	6,166.0	14.2	14.3	-43.09	196.6	-132.6	102.9	75.4	27.54	3.737	
6,300.0	6,247.6	6,242.3	6,203.3	14.3	14.5	-64.30	212.1	-144.9	109.3	81.3	27.97	3.907	
6,400.0	6,329.0	6,299.5	6,253.2	14.4	14.8	-85.21	234.0	-162.4	152.4	123.8	28.57	5.333	
6,500.0	6,395.9	6,362.0	6,308.3	14.8	15.1	-96.35	258.8	-178.2	222.6	193.7	28.95	7.689	
6,600.0	6,445.0	6,440.2	6,379.1	15.6	15.4	-102.45	290.9	-185.7	303.4	274.0	29.44	10.304	
6,700.0	6,473.6	6,578.1	6,502.7	16.7	15.8	-112.84	347.4	-165.4	387.0	357.8	29.25	13.230	
6,800.0	6,480.8	7,145.8	6,780.8	18.2	19.0	-133.11	480.8	264.8	439.0	411.3	27.70	15.849	
6,900.0	6,480.8	7,245.8	6,780.8	19.9	20.6	-133.11	482.4	364.7	439.0	408.8	30.16	14.555	
7,000.0	6,480.8	7,345.8	6,780.8	21.9	22.4	-133.11	484.1	464.7	439.0	406.0	32.96	13.318	
7,100.0	6,480.8	7,445.8	6,780.8	24.0	24.4	-133.11	485.7	564.7	439.0	402.9	36.04	12.181	
7,200.0	6,480.8	7,545.8	6,780.8	26.3	26.6	-133.11	487.3	664.7	439.0	399.6	39.33	11.162	
7,300.0	6,480.8	7,645.8	6,780.8	28.6	28.8	-133.11	489.0	764.7	439.0	396.2	42.78	10.262	
7,400.0	6,480.8	7,745.8	6,780.8	31.1	31.2	-133.11	490.6	864.7	438.9	392.6	46.35	9.470	
7,500.0	6,480.8	7,845.8	6,780.8	33.5	33.6	-133.12	492.3	964.7	438.9	388.9	50.03	8.774	
7,600.0	6,480.8	7,945.8	6,780.8	36.1	36.1	-133.12	493.9	1,064.7	438.9	385.1	53.78	8.161	
7,700.0	6,480.8	8,045.8	6,780.8	38.7	38.6	-133.12	495.6	1,164.6	438.9	381.3	57.60	7.620	
7,800.0	6,480.8	8,145.8	6,780.8	41.3	41.2	-133.12	497.2	1,264.6	438.9	377.4	61.46	7.141	
7,900.0	6,480.8	8,245.8	6,780.8	43.9	43.7	-133.12	498.9	1,364.6	438.9	373.5	65.37	6.713	
8,000.0	6,480.8	8,345.8	6,780.8	46.5	46.4	-133.12	500.5	1,464.6	438.9	369.5	69.32	6.331	
8,100.0	6,480.8	8,445.8	6,780.8	49.2	49.0	-133.13	502.2	1,564.6	438.9	365.6	73.29	5.988	
8,200.0	6,480.8	8,545.8	6,780.8	51.9	51.6	-133.13	503.8	1,664.6	438.8	361.5	77.29	5.678	
8,300.0	6,480.8	8,645.8	6,780.8	54.6	54.3	-133.13	505.5	1,764.6	438.8	357.5	81.31	5.397	
8,400.0	6,480.8	8,745.8	6,780.8	57.3	57.0	-133.13	507.1	1,864.5	438.8	353.5	85.35	5.141	
8,500.0	6,480.8	8,845.8	6,780.8	60.0	59.7	-133.13	508.8	1,964.5	438.8	349.4	89.40	4.908	
8,600.0	6,480.8	8,945.8	6,780.8	62.7	62.4	-133.13	510.4	2,064.5	438.8	345.3	93.47	4.695	
8,700.0	6,480.8	9,045.8	6,780.8	65.4	65.1	-133.14	512.1	2,164.5	438.8	341.2	97.55	4.498	
8,800.0	6,480.8	9,145.8	6,780.8	68.2	67.8	-133.14	513.7	2,264.5	438.8	337.1	101.64	4.317	
8,900.0	6,480.8	9,245.8	6,780.8	70.9	70.6	-133.14	515.4	2,364.5	438.7	333.0	105.73	4.150	
9,000.0	6,480.8	9,345.8	6,780.8	73.7	73.3	-133.14	517.0	2,464.5	438.7	328.9	109.84	3.994	
9,100.0	6,480.8	9,445.8	6,780.8	76.4	76.0	-133.14	518.6	2,564.4	438.7	324.8	113.95	3.850	
9,200.0	6,480.8	9,545.8	6,780.8	79.2	78.8	-133.14	520.3	2,664.4	438.7	320.6	118.07	3.716	
9,300.0	6,480.8	9,645.8	6,780.8	81.9	81.5	-133.14	521.9	2,764.4	438.7	316.5	122.20	3.590	
9,400.0	6,480.8	9,745.8	6,780.8	84.7	84.3	-133.15	523.6	2,864.4	438.7	312.4	126.33	3.473	
9,500.0	6,480.8	9,845.8	6,780.8	87.4	87.0	-133.15	525.2	2,964.4	438.7	308.2	130.46	3.362	
9,600.0	6,480.8	9,945.8	6,780.8	90.2	89.8	-133.15	526.9	3,064.4	438.7	304.1	134.60	3.259	
9,700.0	6,480.8	10,045.8	6,780.8	93.0	92.5	-133.15	528.5	3,164.4	438.6	299.9	138.75	3.161	
9,800.0	6,480.8	10,145.8	6,780.8	95.7	95.3	-133.15	530.2	3,264.4	438.6	295.7	142.89	3.070	
9,900.0	6,480.8	10,245.8	6,780.8	98.5	98.1	-133.15	531.8	3,364.3	438.6	291.6	147.04	2.983	
10,000.0	6,480.8	10,345.8	6,780.8	101.3	100.8	-133.16	533.5	3,464.3	438.6	287.4	151.20	2.901	
10,100.0	6,480.8	10,445.8	6,780.8	104.1	103.6	-133.16	535.1	3,564.3	438.6	283.2	155.35	2.823	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-242HC - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,200.0	6,480.8	10,545.8	6,780.8	106.8	106.4	-133.16	536.8	3,664.3	438.6	279.1	159.51	2.750	
10,300.0	6,480.8	10,645.8	6,780.8	109.6	109.1	-133.16	538.4	3,764.3	438.6	274.9	163.67	2.680	
10,400.0	6,480.8	10,745.8	6,780.8	112.4	111.9	-133.16	540.1	3,864.3	438.6	270.7	167.83	2.613	
10,500.0	6,480.8	10,845.8	6,780.8	115.2	114.7	-133.16	541.7	3,964.3	438.5	266.5	171.99	2.550	
10,600.0	6,480.8	10,945.8	6,780.8	118.0	117.5	-133.17	543.4	4,064.2	438.5	262.4	176.16	2.489	
10,700.0	6,480.8	11,045.8	6,780.8	120.8	120.3	-133.17	545.0	4,164.2	438.5	258.2	180.33	2.432	
10,800.0	6,480.8	11,145.8	6,780.8	123.5	123.0	-133.17	546.7	4,264.2	438.5	254.0	184.50	2.377	
10,900.0	6,480.8	11,245.8	6,780.8	126.3	125.8	-133.17	548.3	4,364.2	438.5	249.8	188.67	2.324	
11,000.0	6,480.8	11,345.8	6,780.8	129.1	128.6	-133.17	549.9	4,464.2	438.5	245.6	192.84	2.274	
11,100.0	6,480.8	11,445.8	6,780.8	131.9	131.4	-133.17	551.6	4,564.2	438.5	241.5	197.01	2.226	
11,117.1	6,480.8	11,462.9	6,780.8	132.4	131.9	-133.17	551.9	4,581.3	438.5	240.7	197.72	2.218	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-322HN - Wellbore #1 - Plan #1 (11-19-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-178.38	-29.5	-0.8	29.5				
100.0	100.0	100.0	100.0	0.1	0.1	-178.38	-29.5	-0.8	29.5	29.3	0.19	157.298	
200.0	200.0	200.0	200.0	0.3	0.3	-178.38	-29.5	-0.8	29.5	28.9	0.64	46.329	
300.0	300.0	300.0	300.0	0.5	0.5	-178.38	-29.5	-0.8	29.5	28.4	1.09	27.165	
400.0	400.0	400.0	400.0	0.8	0.8	-178.38	-29.5	-0.8	29.5	28.0	1.54	19.216	
500.0	500.0	500.0	500.0	1.0	1.0	-178.38	-29.5	-0.8	29.5	27.5	1.99	14.866	
600.0	600.0	600.0	600.0	1.2	1.2	-178.38	-29.5	-0.8	29.5	27.1	2.44	12.122	
700.0	700.0	700.0	700.0	1.4	1.4	-178.38	-29.5	-0.8	29.5	26.6	2.88	10.233	
800.0	800.0	800.0	800.0	1.7	1.7	-178.38	-29.5	-0.8	29.5	26.2	3.33	8.854	
900.0	900.0	900.0	900.0	1.9	1.9	-178.38	-29.5	-0.8	29.5	25.7	3.78	7.802	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-178.38	-29.5	-0.8	29.5	25.3	4.23	6.973	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-178.38	-29.5	-0.8	29.5	24.8	4.68	6.304	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-178.38	-29.5	-0.8	29.5	24.4	5.13	5.752	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-178.38	-29.5	-0.8	29.5	23.9	5.58	5.289	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-178.38	-29.5	-0.8	29.5	23.5	6.03	4.894	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-178.38	-29.5	-0.8	29.5	23.0	6.48	4.555	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-178.38	-29.5	-0.8	29.5	22.6	6.93	4.260	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-178.38	-29.5	-0.8	29.5	22.1	7.38	4.000	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-178.38	-29.5	-0.8	29.5	21.7	7.83	3.770	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-178.38	-29.5	-0.8	29.5	21.2	8.28	3.566	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-178.38	-29.5	-0.8	29.5	20.8	8.73	3.382	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-178.38	-29.5	-0.8	29.5	20.3	9.18	3.216	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-178.38	-29.5	-0.8	29.5	19.9	9.63	3.066	
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	-178.38	-29.5	-0.8	29.5	19.4	10.08	2.929	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-178.38	-29.5	-0.8	29.5	19.0	10.53	2.804	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-178.38	-29.5	-0.8	29.5	18.5	10.98	2.690	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-178.38	-29.5	-0.8	29.5	18.1	11.43	2.584	
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	-178.38	-29.5	-0.8	29.5	17.6	11.88	2.486	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-178.38	-29.5	-0.8	29.5	17.2	12.33	2.395	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-178.38	-29.5	-0.8	29.5	16.7	12.77	2.311	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-178.38	-29.5	-0.8	29.5	16.3	13.22	2.232	
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	-178.38	-29.5	-0.8	29.5	15.8	13.67	2.159	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-178.38	-29.5	-0.8	29.5	15.4	14.12	2.090	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-178.38	-29.5	-0.8	29.5	14.9	14.57	2.026	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-178.38	-29.5	-0.8	29.5	14.5	15.02	1.965	
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	-178.38	-29.5	-0.8	29.5	14.0	15.47	1.908	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-178.38	-29.5	-0.8	29.5	13.6	15.92	1.854	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-178.38	-29.5	-0.8	29.5	13.2	16.37	1.803	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-178.38	-29.5	-0.8	29.5	12.7	16.82	1.755	
3,900.0	3,900.0	3,900.0	3,900.0	8.6	8.6	-178.38	-29.5	-0.8	29.5	12.3	17.27	1.709	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-178.38	-29.5	-0.8	29.5	11.8	17.72	1.666	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-178.38	-29.5	-0.8	29.5	11.4	18.17	1.625	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-178.38	-29.5	-0.8	29.5	10.9	18.62	1.586	
4,300.0	4,300.0	4,300.0	4,300.0	9.5	9.5	-178.38	-29.5	-0.8	29.5	10.5	19.07	1.548	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-178.38	-29.5	-0.8	29.5	10.0	19.52	1.513	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-178.38	-29.5	-0.8	29.5	9.6	19.97	1.479	Level 3
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-178.38	-29.5	-0.8	29.5	9.1	20.42	1.446	Level 3
4,700.0	4,700.0	4,700.0	4,700.0	10.4	10.4	-178.38	-29.5	-0.8	29.5	8.7	20.87	1.415	Level 3
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-178.38	-29.5	-0.8	29.5	8.2	21.32	1.385	Level 3
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-178.38	-29.5	-0.8	29.5	7.8	21.77	1.356	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-178.38	-29.5	-0.8	29.5	7.3	22.21	1.329	Level 3
5,100.0	5,100.0	5,100.0	5,100.0	11.3	11.3	-178.38	-29.5	-0.8	29.5	6.9	22.66	1.303	Level 3

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-322HN - Wellbore #1 - Plan #1 (11-19-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	-178.38	-29.5	-0.8	29.5	6.4	23.11	1.277	Level 3, CC, ES, SF
5,300.0	5,300.0	5,298.4	5,298.4	11.8	11.8	-174.96	-31.4	-2.8	31.5	8.0	23.54	1.340	Level 3
5,400.0	5,400.0	5,395.4	5,394.7	12.0	11.9	-164.89	-38.8	-10.5	40.5	16.6	23.93	1.694	
5,500.0	5,499.7	5,490.3	5,487.8	12.2	12.1	-86.72	-51.5	-23.7	57.4	33.1	24.33	2.360	
5,600.0	5,597.6	5,582.4	5,576.4	12.4	12.3	-90.13	-68.9	-41.7	81.1	56.3	24.73	3.278	
5,700.0	5,691.7	5,670.5	5,658.9	12.7	12.5	-95.15	-90.2	-63.8	112.4	87.2	25.17	4.465	
5,800.0	5,780.4	5,753.7	5,734.6	13.0	12.8	-99.78	-114.2	-88.7	152.2	126.5	25.65	5.933	
5,900.0	5,867.2	5,833.7	5,804.8	13.4	13.1	-109.13	-140.9	-116.3	198.7	172.6	26.12	7.607	
6,000.0	5,960.7	5,919.8	5,878.9	13.7	13.4	-132.62	-171.3	-147.9	248.3	221.7	26.59	9.338	
6,100.0	6,058.6	6,000.7	5,948.9	14.0	13.8	168.62	-200.1	-176.4	299.3	272.2	27.10	11.042	
6,200.0	6,155.9	6,081.0	6,021.5	14.2	14.1	120.33	-229.7	-193.1	352.3	324.8	27.56	12.785	
6,300.0	6,247.6	6,167.4	6,101.5	14.3	14.4	103.88	-262.0	-194.8	405.6	377.6	28.00	14.489	
6,400.0	6,329.0	6,265.0	6,190.3	14.4	14.7	96.37	-297.6	-176.5	456.8	428.3	28.44	16.060	
6,500.0	6,395.9	6,380.8	6,287.9	14.8	14.9	92.55	-336.2	-128.3	502.8	473.8	29.01	17.331	
6,600.0	6,445.0	6,523.8	6,387.2	15.6	15.1	90.92	-374.8	-34.0	539.9	509.8	30.08	17.950	
6,700.0	6,473.6	6,698.0	6,463.1	16.7	16.3	90.38	-403.0	119.0	562.8	530.4	32.47	17.331	
6,800.0	6,480.8	6,860.2	6,480.8	18.2	18.6	90.00	-407.5	279.4	567.8	531.6	36.23	15.674	
6,900.0	6,480.8	6,960.2	6,480.8	19.9	20.3	90.00	-405.8	379.4	567.9	528.1	39.74	14.290	
7,000.0	6,480.8	7,060.2	6,480.8	21.9	22.3	90.00	-404.2	479.4	567.9	524.2	43.68	13.001	
7,100.0	6,480.8	7,160.2	6,480.8	24.0	24.4	90.00	-402.5	579.4	567.9	519.9	47.96	11.842	
7,200.0	6,480.8	7,260.2	6,480.8	26.3	26.7	90.00	-400.9	679.4	567.9	515.4	52.49	10.820	
7,300.0	6,480.8	7,360.2	6,480.8	28.6	29.0	90.00	-399.2	779.3	567.9	510.7	57.21	9.927	
7,400.0	6,480.8	7,460.2	6,480.8	31.1	31.4	90.00	-397.6	879.3	567.9	505.9	62.08	9.148	
7,500.0	6,480.8	7,560.2	6,480.8	33.5	33.9	90.00	-395.9	979.3	568.0	500.9	67.07	8.468	
7,600.0	6,480.8	7,660.2	6,480.8	36.1	36.4	90.00	-394.3	1,079.3	568.0	495.8	72.15	7.872	
7,700.0	6,480.8	7,760.2	6,480.8	38.7	39.0	90.00	-392.7	1,179.3	568.0	490.7	77.30	7.348	
7,800.0	6,480.8	7,860.2	6,480.8	41.3	41.6	90.00	-391.0	1,279.3	568.0	485.5	82.51	6.884	
7,900.0	6,480.8	7,960.2	6,480.8	43.9	44.2	90.00	-389.4	1,379.3	568.0	480.2	87.78	6.471	
8,000.0	6,480.8	8,060.2	6,480.8	46.5	46.8	90.00	-387.7	1,479.2	568.0	475.0	93.08	6.103	
8,100.0	6,480.8	8,160.2	6,480.8	49.2	49.5	90.00	-386.1	1,579.2	568.0	469.6	98.42	5.772	
8,200.0	6,480.8	8,260.2	6,480.8	51.9	52.2	90.00	-384.4	1,679.2	568.1	464.3	103.79	5.473	
8,300.0	6,480.8	8,360.2	6,480.8	54.6	54.9	90.00	-382.8	1,779.2	568.1	458.9	109.18	5.203	
8,400.0	6,480.8	8,460.2	6,480.8	57.3	57.6	90.00	-381.1	1,879.2	568.1	453.5	114.59	4.958	
8,500.0	6,480.8	8,560.2	6,480.8	60.0	60.3	90.00	-379.5	1,979.2	568.1	448.1	120.02	4.733	
8,600.0	6,480.8	8,660.2	6,480.8	62.7	63.0	90.00	-377.8	2,079.2	568.1	442.7	125.47	4.528	
8,700.0	6,480.8	8,760.2	6,480.8	65.4	65.7	90.00	-376.2	2,179.2	568.1	437.2	130.93	4.339	
8,800.0	6,480.8	8,860.2	6,480.8	68.2	68.4	90.00	-374.5	2,279.1	568.2	431.7	136.41	4.165	
8,900.0	6,480.8	8,960.2	6,480.8	70.9	71.2	90.00	-372.9	2,379.1	568.2	426.3	141.89	4.004	
9,000.0	6,480.8	9,060.2	6,480.8	73.7	73.9	90.00	-371.2	2,479.1	568.2	420.8	147.39	3.855	
9,100.0	6,480.8	9,160.2	6,480.8	76.4	76.7	90.00	-369.6	2,579.1	568.2	415.3	152.89	3.716	
9,200.0	6,480.8	9,260.2	6,480.8	79.2	79.4	90.00	-367.9	2,679.1	568.2	409.8	158.40	3.587	
9,300.0	6,480.8	9,360.2	6,480.8	81.9	82.2	90.00	-366.3	2,779.1	568.2	404.3	163.92	3.467	
9,400.0	6,480.8	9,460.2	6,480.8	84.7	84.9	90.00	-364.6	2,879.1	568.2	398.8	169.44	3.354	
9,500.0	6,480.8	9,560.2	6,480.8	87.4	87.7	90.00	-363.0	2,979.0	568.3	393.3	174.97	3.248	
9,600.0	6,480.8	9,660.2	6,480.8	90.2	90.4	90.00	-361.3	3,079.0	568.3	387.8	180.51	3.148	
9,700.0	6,480.8	9,760.2	6,480.8	93.0	93.2	90.00	-359.7	3,179.0	568.3	382.2	186.04	3.055	
9,800.0	6,480.8	9,860.2	6,480.8	95.7	96.0	90.00	-358.0	3,279.0	568.3	376.7	191.59	2.966	
9,900.0	6,480.8	9,960.2	6,480.8	98.5	98.8	90.00	-356.4	3,379.0	568.3	371.2	197.14	2.883	
10,000.0	6,480.8	10,060.2	6,480.8	101.3	101.5	90.00	-354.7	3,479.0	568.3	365.7	202.69	2.804	
10,100.0	6,480.8	10,160.2	6,480.8	104.1	104.3	90.00	-353.1	3,579.0	568.4	360.1	208.24	2.729	
10,200.0	6,480.8	10,260.2	6,480.8	106.8	107.1	90.00	-351.4	3,678.9	568.4	354.6	213.80	2.658	
10,300.0	6,480.8	10,360.2	6,480.8	109.6	109.9	90.00	-349.8	3,778.9	568.4	349.0	219.36	2.591	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-322HN - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	6,480.8	10,460.2	6,480.8	112.4	112.6	90.00	-348.1	3,878.9	568.4	343.5	224.92	2.527	
10,500.0	6,480.8	10,560.2	6,480.8	115.2	115.4	90.00	-346.5	3,978.9	568.4	337.9	230.49	2.466	
10,600.0	6,480.8	10,660.2	6,480.8	118.0	118.2	90.00	-344.8	4,078.9	568.4	332.4	236.06	2.408	
10,700.0	6,480.8	10,760.2	6,480.8	120.8	121.0	90.00	-343.2	4,178.9	568.4	326.8	241.63	2.353	
10,800.0	6,480.8	10,860.2	6,480.8	123.5	123.8	90.00	-341.5	4,278.9	568.5	321.3	247.20	2.300	
10,900.0	6,480.8	10,960.2	6,480.8	126.3	126.5	90.00	-339.9	4,378.9	568.5	315.7	252.77	2.249	
11,000.0	6,480.8	11,060.2	6,480.8	129.1	129.3	90.00	-338.2	4,478.8	568.5	310.1	258.35	2.201	
11,100.0	6,480.8	11,160.2	6,480.8	131.9	132.1	90.00	-336.6	4,578.8	568.5	304.6	263.92	2.154	
11,117.1	6,480.8	11,160.4	6,480.8	132.4	132.1	90.00	-336.6	4,579.0	568.8	304.4	264.40	2.151	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-359HC - Wellbore #1 - Plan #1 (11-19-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-179.20	-59.7	-0.8	59.8				
100.0	100.0	100.0	100.0	0.1	0.1	-179.20	-59.7	-0.8	59.8	59.6	0.19	318.383	
200.0	200.0	200.0	200.0	0.3	0.3	-179.20	-59.7	-0.8	59.8	59.1	0.64	93.774	
300.0	300.0	300.0	300.0	0.5	0.5	-179.20	-59.7	-0.8	59.8	58.7	1.09	54.984	
400.0	400.0	400.0	400.0	0.8	0.8	-179.20	-59.7	-0.8	59.8	58.2	1.54	38.895	
500.0	500.0	500.0	500.0	1.0	1.0	-179.20	-59.7	-0.8	59.8	57.8	1.99	30.091	
600.0	600.0	600.0	600.0	1.2	1.2	-179.20	-59.7	-0.8	59.8	57.3	2.44	24.536	
700.0	700.0	700.0	700.0	1.4	1.4	-179.20	-59.7	-0.8	59.8	56.9	2.88	20.713	
800.0	800.0	800.0	800.0	1.7	1.7	-179.20	-59.7	-0.8	59.8	56.4	3.33	17.920	
900.0	900.0	900.0	900.0	1.9	1.9	-179.20	-59.7	-0.8	59.8	56.0	3.78	15.791	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.20	-59.7	-0.8	59.8	55.5	4.23	14.115	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-179.20	-59.7	-0.8	59.8	55.1	4.68	12.760	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-179.20	-59.7	-0.8	59.8	54.6	5.13	11.642	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-179.20	-59.7	-0.8	59.8	54.2	5.58	10.705	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-179.20	-59.7	-0.8	59.8	53.7	6.03	9.907	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-179.20	-59.7	-0.8	59.8	53.3	6.48	9.220	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-179.20	-59.7	-0.8	59.8	52.8	6.93	8.622	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-179.20	-59.7	-0.8	59.8	52.4	7.38	8.097	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-179.20	-59.7	-0.8	59.8	51.9	7.83	7.632	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-179.20	-59.7	-0.8	59.8	51.5	8.28	7.217	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-179.20	-59.7	-0.8	59.8	51.0	8.73	6.846	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-179.20	-59.7	-0.8	59.8	50.6	9.18	6.510	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-179.20	-59.7	-0.8	59.8	50.1	9.63	6.206	
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	-179.20	-59.7	-0.8	59.8	49.7	10.08	5.930	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-179.20	-59.7	-0.8	59.8	49.2	10.53	5.676	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-179.20	-59.7	-0.8	59.8	48.8	10.98	5.444	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-179.20	-59.7	-0.8	59.8	48.3	11.43	5.230	
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	-179.20	-59.7	-0.8	59.8	47.9	11.88	5.032	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-179.20	-59.7	-0.8	59.8	47.4	12.33	4.848	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-179.20	-59.7	-0.8	59.8	47.0	12.77	4.678	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-179.20	-59.7	-0.8	59.8	46.5	13.22	4.519	
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	-179.20	-59.7	-0.8	59.8	46.1	13.67	4.370	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-179.20	-59.7	-0.8	59.8	45.6	14.12	4.231	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-179.20	-59.7	-0.8	59.8	45.2	14.57	4.100	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-179.20	-59.7	-0.8	59.8	44.7	15.02	3.978	
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	-179.20	-59.7	-0.8	59.8	44.3	15.47	3.862	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-179.20	-59.7	-0.8	59.8	43.8	15.92	3.753	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-179.20	-59.7	-0.8	59.8	43.4	16.37	3.650	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-179.20	-59.7	-0.8	59.8	42.9	16.82	3.552	
3,900.0	3,900.0	3,900.0	3,900.0	8.6	8.6	-179.20	-59.7	-0.8	59.8	42.5	17.27	3.460	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-179.20	-59.7	-0.8	59.8	42.0	17.72	3.372	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-179.20	-59.7	-0.8	59.8	41.6	18.17	3.289	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-179.20	-59.7	-0.8	59.8	41.1	18.62	3.209	
4,300.0	4,300.0	4,300.0	4,300.0	9.5	9.5	-179.20	-59.7	-0.8	59.8	40.7	19.07	3.134	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-179.20	-59.7	-0.8	59.8	40.2	19.52	3.062	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-179.20	-59.7	-0.8	59.8	39.8	19.97	2.993	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-179.20	-59.7	-0.8	59.8	39.3	20.42	2.927	
4,700.0	4,700.0	4,700.0	4,700.0	10.4	10.4	-179.20	-59.7	-0.8	59.8	38.9	20.87	2.864	
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-179.20	-59.7	-0.8	59.8	38.4	21.32	2.803	
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-179.20	-59.7	-0.8	59.8	38.0	21.77	2.745	
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-179.20	-59.7	-0.8	59.8	37.5	22.21	2.690	CC, ES, SF
5,100.0	5,100.0	5,097.1	5,097.1	11.3	11.3	-178.30	-62.0	-1.8	62.1	39.5	22.63	2.744	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-359HC - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,193.7	5,193.4	11.6	11.5	-175.99	-68.7	-4.8	69.2	46.2	23.02	3.007	
5,300.0	5,300.0	5,289.4	5,288.3	11.8	11.6	-173.05	-79.7	-9.7	81.2	57.8	23.40	3.469	
5,400.0	5,400.0	5,383.6	5,381.0	12.0	11.8	-170.18	-94.8	-16.4	98.1	74.3	23.79	4.123	
5,500.0	5,499.7	5,475.8	5,470.9	12.2	12.0	-95.48	-113.6	-24.8	120.4	96.3	24.18	4.981	
5,600.0	5,597.6	5,564.8	5,556.6	12.4	12.2	-98.11	-135.5	-34.5	149.1	124.6	24.56	6.072	
5,700.0	5,691.7	5,648.8	5,636.4	12.7	12.4	-101.90	-159.5	-45.1	185.5	160.6	24.92	7.444	
5,800.0	5,780.4	5,726.6	5,709.2	13.0	12.6	-105.79	-184.5	-56.3	230.9	205.6	25.28	9.132	
5,900.0	5,867.2	5,800.0	5,776.8	13.4	12.8	-116.63	-210.6	-67.9	282.9	257.3	25.60	11.053	
6,000.0	5,960.7	5,875.3	5,844.9	13.7	13.1	-143.70	-239.9	-80.8	337.2	311.2	26.01	12.966	
6,100.0	6,058.6	5,946.0	5,907.8	14.0	13.4	154.72	-269.5	-94.0	390.6	364.0	26.62	14.676	
6,200.0	6,155.9	6,008.8	5,962.5	14.2	13.7	105.67	-297.6	-106.5	443.5	416.3	27.17	16.323	
6,300.0	6,247.6	6,071.6	6,016.7	14.3	14.0	89.74	-326.7	-119.4	496.4	468.8	27.60	17.984	
6,400.0	6,329.0	6,123.3	6,061.3	14.4	14.3	81.67	-350.6	-130.0	550.0	522.1	27.90	19.711	
6,500.0	6,395.9	6,160.0	6,092.9	14.8	14.5	75.01	-367.6	-137.6	605.1	577.1	28.04	21.577	
6,600.0	6,445.0	6,179.9	6,110.1	15.6	14.6	67.96	-376.8	-141.7	661.4	633.6	27.88	23.720	
6,700.0	6,473.6	6,181.9	6,111.8	16.7	14.6	60.35	-377.8	-142.1	717.6	690.3	27.28	26.305	
6,800.0	6,480.8	6,166.3	6,098.3	18.2	14.5	53.87	-370.5	-138.9	771.5	744.8	26.69	28.904	
6,900.0	6,480.8	6,145.0	6,080.0	19.9	14.4	52.06	-360.7	-134.5	829.6	802.1	27.53	30.137	
7,000.0	6,480.8	6,123.6	6,061.6	21.9	14.3	50.26	-350.8	-130.1	894.7	866.2	28.47	31.428	
7,100.0	6,480.8	7,536.6	6,780.8	24.0	25.5	108.67	-722.3	584.7	937.0	891.4	45.66	20.521	
7,200.0	6,480.8	7,636.6	6,780.8	26.3	27.6	108.67	-720.7	684.6	937.0	887.1	49.93	18.767	
7,300.0	6,480.8	7,736.6	6,780.8	28.6	29.9	108.67	-719.0	784.6	937.0	882.7	54.39	17.229	
7,400.0	6,480.8	7,836.6	6,780.8	31.1	32.2	108.67	-717.4	884.6	937.1	878.1	58.99	15.885	
7,500.0	6,480.8	7,936.6	6,780.8	33.5	34.6	108.67	-715.7	984.6	937.1	873.4	63.71	14.708	
7,600.0	6,480.8	8,036.6	6,780.8	36.1	37.0	108.67	-714.0	1,084.6	937.1	868.6	68.52	13.675	
7,700.0	6,480.8	8,136.6	6,780.8	38.7	39.6	108.67	-712.4	1,184.6	937.1	863.7	73.41	12.765	
7,800.0	6,480.8	8,236.6	6,780.8	41.3	42.1	108.67	-710.7	1,284.6	937.1	858.8	78.35	11.960	
7,900.0	6,480.8	8,336.6	6,780.8	43.9	44.7	108.67	-709.1	1,384.5	937.1	853.8	83.35	11.243	
8,000.0	6,480.8	8,436.6	6,780.8	46.5	47.3	108.67	-707.4	1,484.5	937.1	848.8	88.38	10.603	
8,100.0	6,480.8	8,536.6	6,780.8	49.2	49.9	108.67	-705.8	1,584.5	937.2	843.7	93.45	10.028	
8,200.0	6,480.8	8,636.6	6,780.8	51.9	52.5	108.67	-704.1	1,684.5	937.2	838.6	98.55	9.509	
8,300.0	6,480.8	8,736.6	6,780.8	54.6	55.2	108.67	-702.5	1,784.5	937.2	833.5	103.67	9.040	
8,400.0	6,480.8	8,836.6	6,780.8	57.3	57.9	108.67	-700.8	1,884.5	937.2	828.4	108.82	8.613	
8,500.0	6,480.8	8,936.6	6,780.8	60.0	60.6	108.67	-699.2	1,984.5	937.2	823.2	113.98	8.223	
8,600.0	6,480.8	9,036.6	6,780.8	62.7	63.2	108.67	-697.5	2,084.4	937.2	818.1	119.16	7.865	
8,700.0	6,480.8	9,136.6	6,780.8	65.4	66.0	108.67	-695.9	2,184.4	937.2	812.9	124.35	7.537	
8,800.0	6,480.8	9,236.6	6,780.8	68.2	68.7	108.67	-694.2	2,284.4	937.2	807.7	129.55	7.234	
8,900.0	6,480.8	9,336.6	6,780.8	70.9	71.4	108.67	-692.6	2,384.4	937.3	802.5	134.77	6.955	
9,000.0	6,480.8	9,436.6	6,780.8	73.7	74.1	108.67	-690.9	2,484.4	937.3	797.3	139.99	6.695	
9,100.0	6,480.8	9,536.6	6,780.8	76.4	76.8	108.67	-689.3	2,584.4	937.3	792.1	145.23	6.454	
9,200.0	6,480.8	9,636.6	6,780.8	79.2	79.6	108.67	-687.6	2,684.4	937.3	786.8	150.47	6.229	
9,300.0	6,480.8	9,736.6	6,780.8	81.9	82.3	108.67	-686.0	2,784.4	937.3	781.6	155.71	6.019	
9,400.0	6,480.8	9,836.6	6,780.8	84.7	85.1	108.67	-684.3	2,884.3	937.3	776.4	160.97	5.823	
9,500.0	6,480.8	9,936.6	6,780.8	87.4	87.8	108.67	-682.7	2,984.3	937.3	771.1	166.23	5.639	
9,600.0	6,480.8	10,036.6	6,780.8	90.2	90.6	108.67	-681.0	3,084.3	937.4	765.9	171.49	5.466	
9,700.0	6,480.8	10,136.6	6,780.8	93.0	93.3	108.67	-679.4	3,184.3	937.4	760.6	176.76	5.303	
9,800.0	6,480.8	10,236.6	6,780.8	95.7	96.1	108.67	-677.7	3,284.3	937.4	755.4	182.03	5.149	
9,900.0	6,480.8	10,336.6	6,780.8	98.5	98.8	108.66	-676.1	3,384.3	937.4	750.1	187.31	5.004	
10,000.0	6,480.8	10,436.6	6,780.8	101.3	101.6	108.66	-674.4	3,484.3	937.4	744.8	192.59	4.867	
10,100.0	6,480.8	10,536.6	6,780.8	104.1	104.4	108.66	-672.8	3,584.2	937.4	739.6	197.88	4.737	
10,200.0	6,480.8	10,636.6	6,780.8	106.8	107.1	108.66	-671.1	3,684.2	937.4	734.3	203.17	4.614	
10,300.0	6,480.8	10,736.6	6,780.8	109.6	109.9	108.66	-669.5	3,784.2	937.5	729.0	208.46	4.497	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Cornish Pad Sec.8-T6N-R63W - Cornish FH 08-359HC - Wellbore #1 - Plan #1 (11-19-13)

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

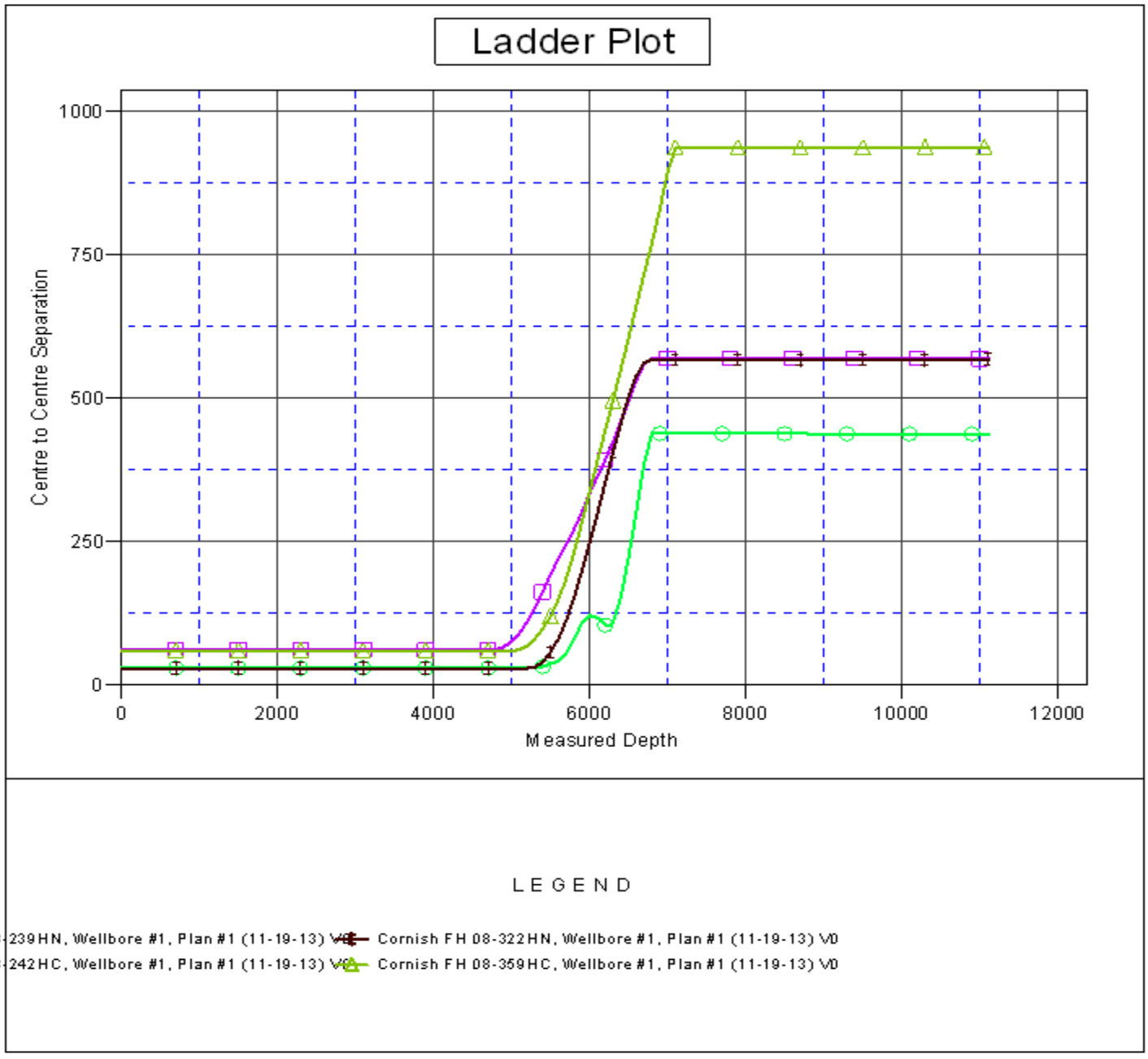
Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	6,480.8	10,836.6	6,780.8	112.4	112.7	108.66	-667.8	3,884.2	937.5	723.7	213.75	4.386	
10,500.0	6,480.8	10,936.6	6,780.8	115.2	115.5	108.66	-666.2	3,984.2	937.5	718.4	219.04	4.280	
10,600.0	6,480.8	11,036.6	6,780.8	118.0	118.2	108.66	-664.5	4,084.2	937.5	713.2	224.34	4.179	
10,700.0	6,480.8	11,136.6	6,780.8	120.8	121.0	108.66	-662.9	4,184.2	937.5	707.9	229.64	4.083	
10,800.0	6,480.8	11,236.6	6,780.8	123.5	123.8	108.66	-661.2	4,284.1	937.5	702.6	234.94	3.990	
10,900.0	6,480.8	11,336.6	6,780.8	126.3	126.6	108.66	-659.6	4,384.1	937.5	697.3	240.25	3.902	
11,000.0	6,480.8	11,436.6	6,780.8	129.1	129.4	108.66	-657.9	4,484.1	937.6	692.0	245.55	3.818	
11,057.0	6,480.8	11,493.6	6,780.8	130.7	130.9	108.66	-657.0	4,541.1	937.6	689.0	248.58	3.772	
11,100.0	6,480.8	11,527.7	6,780.8	131.9	131.9	108.66	-656.4	4,575.2	937.6	687.0	250.62	3.741	
11,117.1	6,480.8	11,527.7	6,780.8	132.4	131.9	108.66	-656.4	4,575.2	937.9	686.9	251.07	3.736	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4695.8ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Cornish FH 08-279HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.67°



Company:	Great Western	**Local Co-ordinate Reference:**	Well Cornish FH 08-279HN
Project:	SEC.8-T6N-R63W	**TVD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Reference Site:	Cornish Pad Sec.8-T6N-R63W	**MD Reference:**	WELL @ 4695.8ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Cornish FH 08-279HN	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (11-19-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4695.8ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Cornish FH 08-279HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.67°